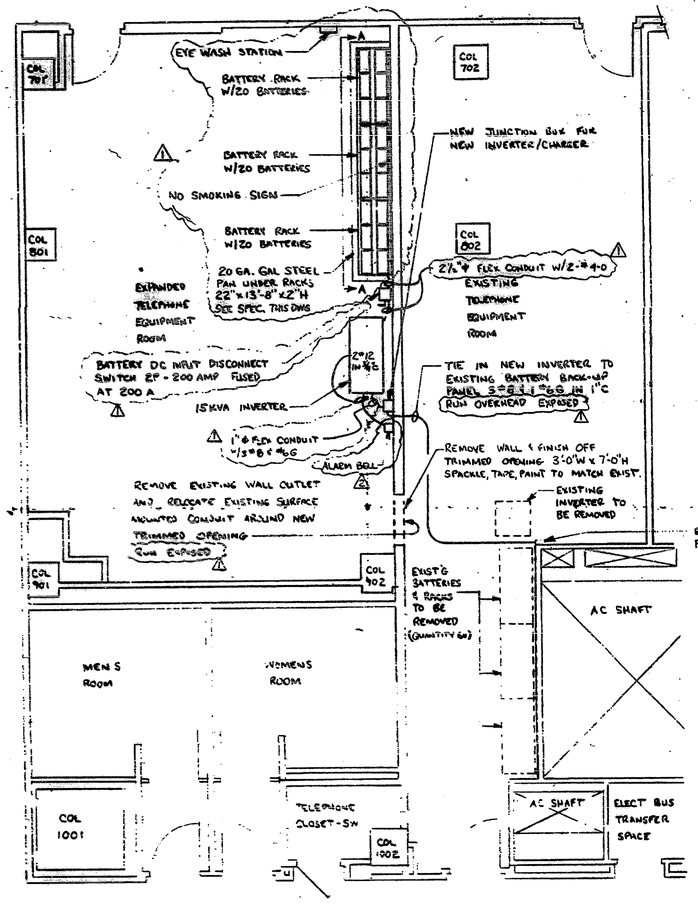


PART PLAN

SCALE 1/4"=1'-0"

CONTRACTORS NOTES:

1. Contractor shall set adjustable invertor/charger float voltage to 135 volts (2.25 volts/cell) or less as directed by PAC
2. Contractor shall set the float voltage automatic safety cutout at 138 volts (2.30 volts/cell). Safety cutout is factory set at 149 volts.
2. Contractor shall wire the alarm bell to the shutdown alarm contacts in the invertor/charger to sound when the charging unit shuts down on high float voltage cutout.
3. Contractor shall conduct a test as directed by Port Authority personnel to demonstrate that a charging voltage in excess of 138 volts (2.30 volts/cell) will properly initiate shutdown of the charging unit and sound the local alarm bell

Equipment

Batteries

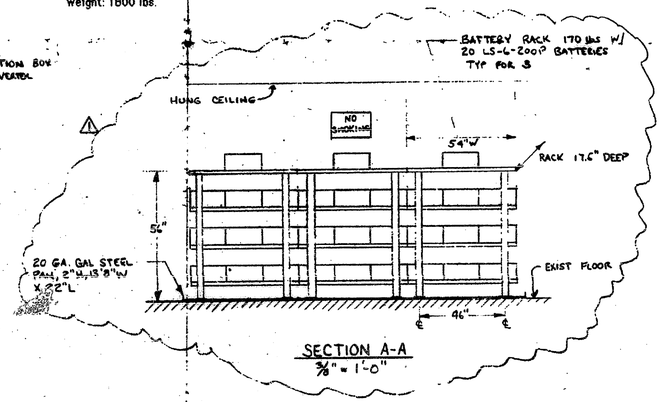
Batteries shall be Liberty Series sealed lead-acid type as manufactured by Allied C & D Power Systems Inc.
Model: LS-6-200P, (16.56"L x 6.6"W x 8.65"H)
Nominal Voltage: 6 volts
No. of Cells: 3 cells
Rated 8Hr Capacity: 200 ampere hours at 5.25 volts
Weight: 92 lbs.
Vent System: None required (Batteries are in a sealed gas tight case)

Battery racks

Racks are 4 tiers high with a capacity of 24 batteries and are manufactured by Allied C & D Power Systems Inc. for the above specified batteries. Approx Wt 170 lbs.

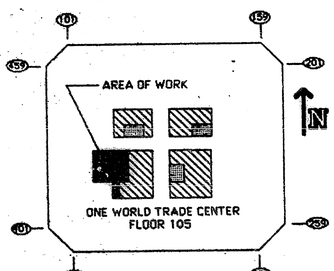
Power Inverter

shall be Model no. 81515 as manufactured by Topaz Electronics of San Diego Calif.
Nominal output: 15 KVA
Input: 208V/120/3 phase/60 hz
Output: 120 volt/1 phase
Cabinet: NEMA Type 2 enclosure-72"H x 52"W x 24"D
Weight: 1800 lbs.



SECTION A-A

3/8" = 1'-0"



KEY PLAN

NO SCALE

ELECTRICAL SPECIFICATIONS

CODES AND STANDARDS

The Electrical Installation shall comply with the following codes and standards

1. Underwriters Laboratories Inc - UL
2. National Electrical Code of the NFPA - NEC
3. New York, N.Y. Electric Code
4. Occupational Safety and Health Act - OSHA

CUTTING AND PATCHING

1. All cutting and patching required for equipment included in these specifications shall be done by this Contractor. If cutting is done due to failure to perform preliminary roughing work, this Contractor will be responsible for the cost of the additional patching.
2. This Contractor shall not do any cutting that may impair the strength of the building construction. No holes, except for small screws, may be drilled in beams or other structural members, without obtaining prior approval. All work shall be done in a neat manner by mechanics skilled in their trades and as approved.

RACEWAYS AND BOXES

1. Where sizes of raceways or boxes are not indicated, the Contractor shall size these items as required for the installation.
2. All conduit and tubing shall be cut square and reamed at the ends. The lead shall be applied to all exposed threads after joints have been made clean and tight.
3. Conduit and tubing runs shall be mechanically and electrically continuous from service/starting to all outlets.
4. All vertical runs of conduit or tubing terminating in the bottoms of wall boxes or cabinets, or similar locations, shall be protected from the entrance of foreign material prior to the installation of conductors.
5. Where conduit is run exposed it shall be securely supported with zinc coated malleable iron pipe straps or other approved metals.

GROUNDING

Proper hardware required for complete grounding system, shall be installed by the Contractor.

WIRES

Unless otherwise specified or specifically indicated on the drawings, all conductors for lighting and power shall be tinned single conductor, annealed copper with type XHHW insulation, 600 volt and a minimum of 98 percent conductivity.

Color coding

The Contractor shall match the color coding that is being used in the building.

Connections

The wiring shall be furnished and installed complete from point of service connection to all outlets indicated on drawings.

CABLE SPLICING

1. No splices or joints will be permitted in either feeders or branches except at outlets or accessible terminals, splice or junction boxes.
2. Where the Contractor makes connections to existing wires, he shall open and disconnect the existing splices from such wires and install new splices to include the existing as indicated.
3. All splices for wire sizes #10 and smaller shall be made with insulated spring connectors applied to twisted conductors. Two half lapped layers of vinyl tape extending a distance of not less than one inch from the connector shall be applied. Splices other than the aforementioned, will be permitted at the discretion of the Engineer.

IDENTIFICATION OF WIRES

1. All wires shall be identified by circuits in all cabinets, boxes, wiring troughs and other enclosures, and at all terminal points.

FINAL CLEANUP

After completion of the entire installation the Contractor shall repair or replace, as directed by the Engineer, at no additional cost to the owner, any item damaged due to installation, relocation or reinstallation.

GALVANIZED PAN

FURNISH & INSTALL A 20 GA. GALVANIZED STEEL PAN FOR UNDER BATTERY RACKS. PAN SHALL BE 4" LARGER THAN THE RACKS ON 3 SIDES AND FIT TIGHTLY TO THE WALL IN BACK. PAN SHALL HAVE SIDES UPTURNED 2" (HIGH) AND THE EDGES SHALL HAVE A 1" HEM TURNED OUTWARD. CORNERS SHALL BE SOLDERED AND WATER TIGHT. INTERIOR SURFACE SHALL BE HAVE ACID RESISTANT COATING. SUBMIT CAT CUTS FOR PAN & COATING.

REV 2	7-11-86	AS PER P.A COMMENT
REV 1	5-8-86	AS PER P.A. COMMENTS

CANTOR FITZGERALD SECURITIES CORP
ONE WORLD TRADE CENTER-FLOOR 105
NEW YORK, N.Y. 10048

POWER, BATTERIES & INVERTER PLAN

JOHN C. WESTRICK & ASSOCIATES
CONSULTING ENGINEERS
2110 MAPLE AVENUE
SOUTH PLAINFIELD, N.J. 07080

SCALE: AS SHOWN	DWN BY: RAG	CHK BY: JCW
DATE: 5-24-86	JOB NO: 8..3	E-1